

Notes for 2011 Gypsy Moth Public Meeting Presentation

SLIDE 1: Introduction

SLIDE 2: How the talk is structured.

SLIDE 3: How GM arrived in the US.

SLIDE 4: Spread of GM from 1900 to 2007 (will advance automatically).

SLIDE 5: Gypsy moth quarantine in Indiana.

SLIDE 6: GM prefers oak trees; can kill trees after several years of defoliation

SLIDE 7: BIOLOGY

SLIDE 8: LIFE CYCLE WHEEL

- Gypsy moths have a one year life cycle which is typical of most moths.
- Over the next few slides we'll take a look at their life cycle.

SLIDE 9: Egg masses.

SLIDE 10: Caterpillars

- When they first hatch are quite tiny but quickly grow as they voraciously feed on tree foliage.

SLIDE 11: Ballooning and nests.

SLIDE 12: Identifying and older GM caterpillar.

SLIDE 13: Pupae

SLIDE 14: Adults

SLIDE 15: INSECTS COMMONLY MISTAKEN FOR GM - Fall webworm, bagworm, tent caterpillars

SLIDE 16: DAMAGE

SLIDE 17: Reasons to be concerned about GM

SLIDE 18: *The leaf in this slide represents an approximation of how much leaf tissue a GM caterpillar can destroy from the time it hatches to the time it pupates.*

SLIDE 19: Recent damage from GM in PA.

SLIDE 20: Damage in a Fort Wayne neighborhood.

SLIDE 21: Hosts for GM caterpillars grouped by preference.

SLIDE 22: Dangers of repeated defoliation

SLIDE 23: Thoughts for homeowners

SLIDE 24: Caterpillars seldom appear in small numbers. They are usually present by the thousands or even millions, and they make a terrible mess as they move around looking for food.

SLIDE 25: A not-uncommon seen during a GM population explosion.

SLIDE 26: The bristly structure of the larval hair, which often break off and become airborne, can trigger skin and respiratory sensitivity in some people.

SLIDE 27: Since GM caterpillars consume enormous quantities of food, it makes sense that they also excrete lots of waste.

SLIDE 28: SURVEYS

SLIDE 29: The STS program coordinates surveys and data management, which leads to decisions about when and where treatments will have the best effect at keeping the insect's spread in check.

SLIDE 30: Surveys are conducted in strategic places throughout the state every year. Sticky traps baited with female pheromones attract males, which subsequently become stuck to the trap.

SLIDE 31: Visual of traps.

SLIDE 32: Egg mass surveys

Female GM try to hide their egg masses from predators and the effects of the environment. They are often quite creative in where they deposit them.

SLIDE 33: Slowing the rate of GM spread has many environmental and financial benefits. A gradual transition rather than a rapid one allows homeowners and businesses time to prepare for the insect's arrival, and allows time for natural enemies and pathogens time to build up for natural control.

SLIDE 34: TREATMENTS

SLIDE 35: The four possibilities

SLIDE 36: When should aerial treatments be used?

SLIDE 37: Some parameters....

SLIDE 38: MATING DISRUPTION

SLIDE 39: *Best to practice using this slide – it's pretty self-explanatory.*

SLIDE 40: A bit more about the products used in mating disruption.

SLIDE 41: Btk has been around a long time and almost everyone in the US has been exposed to it already.

SLIDE 42: When is Btk called for?

SLIDE 43: How Btk works

SLIDE 44: Brief mention of some of the natural enemies that help control GM populations, including the Nuclear Polyhedrosis (NPV) virus and the fungal pathogen *Entomophaga maimaiga*.

SLIDE 45: Security